

L 24846-66

ACC NR: AP6007813

single spark gap is the ratio of the number of ignitions to the number of particle transits. It was found that the chamber efficiency in the case of series connected spark gaps is higher than that of a parallel-fed chamber when the supply voltages are identical. The increase in efficiency when the supply voltage is raised and the reduction in frequency as related to the pulse delay is steeper for the series power supply. The memory time of the chamber for both types of connection is approximately identical both with and without a clearing field. The tracks of the sparks are thinner and more uniform with series gap connection due to the fact that the current is the same for all gaps. No special measurements were made of the chamber efficiency for the case of simultaneous registration of several particles. However, it is pointed out that several particles were registered simultaneously at a comparatively low electric field strength in the gap in the case of a series-connected power supply. The multi-track efficiency of the chamber may be improved by increasing the duration or amplitude of the high-voltage pulse. Orig. art. has: 8 figures, 2 formulas.

SUB CODE: 18/

SUBM DATE: 15Jan65/

ORIG REF: 002/

OTH REF: 001

Card 2/2 dda

ACC NR: AP6035920

SOURCE CODE: UR/0413/66/000/020/0173/0173

AUTHOR: Rozhin, D. P.; Gus'kov, B. N.; Stil'nik, E. V.; Baskakov, V. I.; Veselin, V. S.

ORG: none

TITLE: Shut-off pyrovalve. Class 47, No. 187463

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 20, 1966, 173

TOPIC TAGS: valve, aircraft fuel system, fuel feed system

ABSTRACT: The proposed valve for use, for instance, in aircraft fuel systems, contains a pyromechanism-controlled shut-off element and a housing with a flow-through section having inlet and outlet ducts and a sealing flange. To ensure air-tight sealing by closing the shut-off

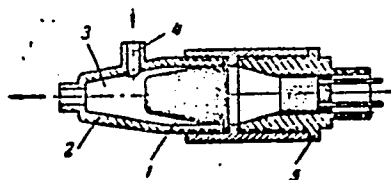


Fig. 1. Pyrovalve

- 1 - Shut-off element; 2 - valve housing;
- 3 - flow-through section; 4 - inlet duct;
- 5 - pyromechanism

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UDC: 621.646 621.45

ACC NR: AP6035920

element along a single contact surface, to decrease the size and weight of the valve, and also to simplify its design, the flow-through section of the housing is made in the form of a conical seat; the inlet (or outlet) duct closes when the pyromechanism triggers the shut-off element. This element has the shape of a truncated cone (see Fig. 1). Orig. art. has: 1 figure.

[WA-76]

SUB CODE:: 21~~3~~/ SUBM DATE: 13Feb65/

Card 2/2

INVENTORS:

(A, N)
Panfilov, A. F.; Maslennikov, A. P.; Gus'kov, B. N.

SOURCE CODE: UR/0413/65/000/023/0104/0104

ORG: none

TITLE: A gas pressure regulator. Class 42, No. 189241

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 23, 1966, 104

TOPIC TAGS: gas pressure, pressure gage, automatic pressure control, pressure regulator

ABSTRACT: This Author Certificate presents a gas pressure regulator with a throttling unit operated by a spring-loaded membrane. The opening above the membrane of this unit is connected with the outflow opening of the regulator by a duct. The opening below the membrane is connected to the opening above the membrane through an auxiliary pressure regulator (see Fig. 1). To decrease the size of the regulator, the sensitive element of the auxiliary regulator is made in the shape of a Bourdon tube.

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Orig. art. has: 1 figure.

SUB CODE: 13, 21/ SUBM DATE: 02Aug65

UDC: 66.073.4:621.646.42
0730
2709

APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R000617620012-6"

Card 2/2

GUS'KOV, B. S. Engineer

USSR

"Manufacture of Worm Racks", Stanki I
Instrument, 14, No. 6, 1943

BR-52059019

GUS'KOV, B. S., Engineer

USSR

Increasing the Length of Service of Friction Disks
in the DiP-200 Lathe." Stanki I Instrument Vol. 15,
No. 6, 1944

BR 52059019

GUSIKOV, B.S., Engineer

USSR

"A New and Modernized Design for the Automatic-
Feed Lock Mechanism on the Slides of Lathes."
Stanki I Instrument Vol. 15, No. 9, 1944

BR 52059019

GUS'KOV, B. S., Engineer

USSR

"Increasing the Table Travel of a Planing Machine."
Stanki I Instrument Vol. 15, No. 10-11, 1944

BR 52059019

GUS'KOV, B. S., Engineer

USSR

"an Attachment for Accelerating Slide Travel on
Lathes." Stanki I Instrument Vol. 15, No. 12, 1944

BR 52059019

GUS'KOV, B.S., dotsent; LEUTA, V.I., redaktor; RUDENSKIY, Ya.V.,
tekhredaktor.

[Cutting processes in power method turning] Rezhimy rezaniia
pri tochenii silovym metodom. Kiev, Gos. nauchno-tekhn. izd-vo
mashinostroit. i sudostroit. lit-ry, 1954. 33 p. (MLRA 7:12)
(Metal cutting)

PILONENKO, Serafim Nikonovich; KOSTYUKOV, Viktor Aleksandrovich; RODIN, Petr Rodionovich; GUS'KOV, Boris Sergeyevich; KAIUCHENKO, A.G., inzhener, redaktor; SERDYUK, V.K., inzhener; redaktor; RUBINSKIY, Ya.V.; tekhnicheskii redaktor.

[Concise manual for tool operators at machine-tractor stations]
Kratkiy spravochnik stanochnika MTS. Kiev, Gos.nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1955. 319 p. (MLRA 9:6)
(Machine-tractor stations) (Metalwork)

GUS'KOV, B.S.

Attachments for automatic screw thread cutting on screw-cutting
lathes. Stan.i instr. 28 no.9:41-42 S '57. (MIRA 10:10)
(Screw-cutting machines--Attachments)

GUS'KOV, B.S.; KRAKHIN, A.G.

Wear of cutters and surface smoothness in fine boring of
cast-iron bushings on diamond boring machines. Stan.1
instr. 33 no.5:31 My '62. (MIRA 15:5)
(Drilling and boring)

GUS'KOV, B.S., kand. tekhn. nauk; KRAKHIN, A.G., inzh.

Dimensional strength of hard-alloy cutting tools and surface roughness in fine boring of cast-iron parts. Mashinostroenie no.1:25-27 Ja-F '63. (MIRA 16:7)

1. Odesskiy tekhnologicheskii institut im. Lomonosova.
(Drilling and boring)

ACCESSION NR: AP4043975

S/0121/64/000/008/0023/0024

AUTHOR: Krakhin, A. G.; Gus'kov, B. S.; Berezovskiy, G. P.

TITLE: The use of TsM332 cutting tools in fine boring

SOURCE: Stanki i instrument, no. 8, 1964, 23-24

TOPIC TAGS: boring tool, TsM332 alloy, fine boring mill, T30K4 alloy, cutting speed, cutting feed, surface finish, ceramic tip, ceramic tool

ABSTRACT: One-piece boring tools were made of TsM332 alloy by the Moskovskiy kombinat tverdykh splavov (Moscow Combine of Hard Alloys). Tools, 6, 8, and 12 mm in diameter and 20 mm long, were sintered to RA 91—91.5 and were ground with a diamond wheel to: $\psi = 60^\circ$, $\psi_1 = 15^\circ$, $\gamma = 3^\circ$, $\alpha = 12^\circ$, $\lambda = 0^\circ$, $r = 0.3$ mm. In operation they were held in a boring bar 25 mm in diameter, made of steel 45. They were tested on 55 x 20 mm bushings with internal diameters of 29—35 mm, made of steel 45. It was desired these tools be compared with those made of T30K4 alloy. The tests determined tool wear at cutting speeds $v = 200—375$ m/min, the wear at the feeds $s = 0.015—0.075$ mm/rev, and also the

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surface roughness obtained at the depth of cut $t = 0.1$ mm and $v = 320$ m/min. The wear sustained by the cutter in a given length of cut was determined indirectly by measuring the taper of the bushing hole. The thermal elongation of the tools was found to be negligible due to the short machining time. These experiments proved that, under the given conditions, the use of one-piece cutters of TsM332 alloy eliminated the losses related to brazing or mechanical fixing of standard tips and that they withstood a cutting speed twice as high as that tolerated by T30K4-alloy tools (see Figs. 1 and 2 of the Enclosure). The new tools also produced a surface finish dependent only on the tool geometry and practically independent of the cutting speed. The optimal conditions for the TsM332 tools are: $v = 280-320$ m/min, $t = 0.1$ mm, and $s = 0.045$ mm/rev. To prevent chipping the TsM332 cutters they should be disengaged from the metal before being withdrawn from the sleeve. Orig. art. has: 4 figures.

ASSOCIATION: none

SUBMITTED: 00

ATD PRESS: 3083

ENCL: 01

SUB CODE: IE, MM

NO REF SOV: 003

OTHER: 000

Card 2/3

ACCESSION NR: APL013975

ENCLOSURE: 01

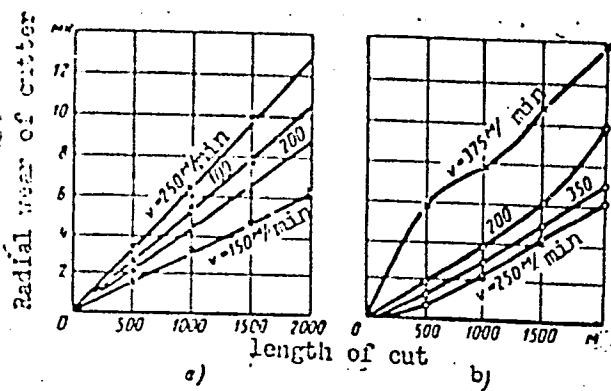


Fig. 1. a. cutter of alloy T30Kh;
b. cutter of alloy TsM332.

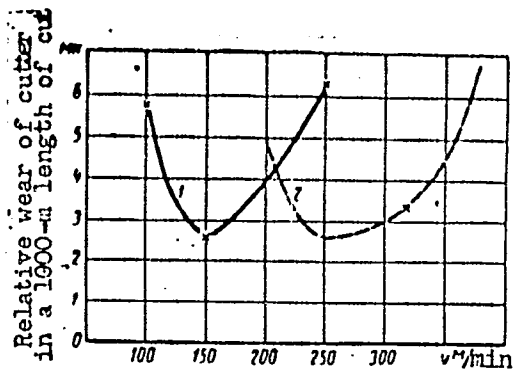


Fig. 2. 1. cutter of alloy T30Kh;
2. cutter of alloy TsM332.

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GUS'KOV, B.S.; KRAKHIN, A.G.; BEREZOVSKIY, G.P.

Boring bar with mechanical fastening of ceramic tips for a
diamond boring machine. Stan.i instr. 34 no.3:34 Mr '63.
(MIRA 16:5)

(Drilling and boring machinery)

GUS'KOV, B.Ye.

[Cutting tool set-up in power grinding] Rezhimy rezaniia pri
tochenii silovym metodom. Kiev, Mashgis, 1954. 36 p. (MLRA 7:11D)

22017

S/145/61/000/003/002/006
D205/D304

15.8340

AUTHOR: Gus'kov, D.D., Engineer

TITLE:

Application of plastics for anti-friction bearings

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy,
mashinostroyeniye, no. 3, 1961, 50 - 57

TEXT: The article gives a short historical review of the use of plastics for anti-friction bearings and discusses the manufacture, properties and application of bearing components made of various plastic materials. Materials for bearing cages should have the following properties: high wear resistance, low coefficient of dry friction, good adsorption of lubricants, high temperature resistance, dimensional stability and low coefficient of temperature expansion. It has been proved that some plastics are particularly suitable for cages. They can resist higher normal and tangential forces in sliding friction and have a higher resistance to wear.

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Application of plastics ...

than steel or brass. A valuable property of plastics is that a fault will lead to failure much more slowly than in a metal component. Plastics are also less susceptible to shock. Tests on a special rig in which a specimen was rubbed by a revolving wheel showed that the best plastics for cages are fiber plastics based on phenol-formaldehyde resin and those containing graphite with pure cotton as a filler. Wear for brass was 8 times higher than for fiber plastics, although the applied pressure was 35 kg/cm² for plastics and only 15 kg/cm² for brass specimens. First, plastic cages were machined from textolite tubes but attempts to make production cheaper resulted in pressed cages made from special thermo-setting compounds containing short fibers as filler. A phenol-formaldehyde compound containing wood filings was developed for this purpose in the USSR. In the GDR split cages were press-formed from a compound containing textile fibers and fine pieces of textiles. These did not require machining except drillings for rivets. Cages cast from polyamides are the cheapest -- although not the best states the

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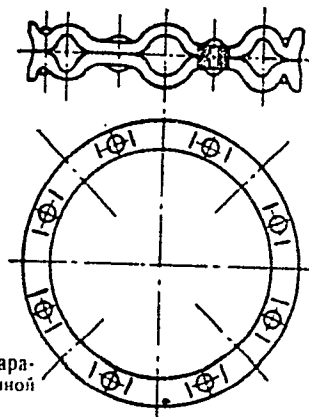
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Application of plastics ...

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D205/D304

author -- to produce, requiring only the removal of the flash, but they have a lower dimensional stability, a much greater sensitivity to external conditions (humidity, temperature, presence of solvents, etc.) and cannot be used above 80°C. Early plastic cages copied the massive design of brass cages. An improved strip design is shown in Fig. 2.

Fig. 2. Press-formed separator with sections of constant thickness.



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Рис. 2. Прессованный сепаратор с сечениями постоянной толщины

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This ensures uniform heating and a better dimensional stability. Also, the rivet holes are shorter and can be press-formed. A polyamide cage of this form can be cast in one piece, as the balls can be inserted in position owing to the high elasticity of this plastic. Rolling elements made of plastics have some advantages over those made of steel, namely: Cheapness, lower weight, good resistance to shock loading (no brinelling), corrosion resistance, lower sensitivity to dirt and lower quantity of oil, lower noise level. The disadvantages are: Low load capacity, high friction torque. Therefore, bearings with plastic rolling elements can operate only up to 15 rpm with cage speeds up to 150 m/min and within temperature limits of -54 to 150°C. Of the many plastics tested, melamine (without a filler) and phenol-formaldehyde with α -cellulose were found to be the best for rolling elements. One inch melamine balls tested between flat plates failed under 2000 kg with a deformation of 1.4 mm. In a bearing with a usual osculation, this load will be 40 to 50 % higher. Plastic balls are formed in dies

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under high pressure or made from rods. They are then ground on centerless grinding machines and finished in drums with an abrasive. The balls are stress-relieved before final grinding. 10 mm balls from phenol plastic withstood 90.7 kg between flat plates without permanent deformation, but the failing load varied from 193 to 454 kg. By strict control of the processes a minimum failing load of 340 kg could be ensured. Phenol balls require a long hardening time (15 min for 0.5 in balls) and balls in pure melamine tend to absorb gases when being formed. Melamine with α -cellulose is easier to use. By applying plastic rolling elements and aluminum or magnesium races, the weight of a bearing can be reduced by 65 to 85 %. Plastic bearings need not be as accurate or as well finished as steel ones. Their cost is also about 75 % less and they do not need oil, except to reduce friction torque and to protect the metal parts from corrosion. There are 3 figures and 8 references: 3 Soviet-bloc and 5 non-Soviet-bloc. The references to the English-language publications read as follows: I.E. Montalbano,

Card 5/6

Application of plastics ...

22017
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D205/D304

Plastic ball and roller bearings, Machine Design, 1958, 30, no. 16,
96-99; W Gzygan, Plastic ball bearings compete with steel, Iron Age,
1957, 180, No. 15, 116-117. ✓

ASSOCIATION: MVTU im. N.E. Bauman (Moscow Technological College
(MVTU) im. N.E. Bauman)

SUBMITTED: November 2, 1960

Card 6/6

GUS'KOV, D.D., inzh.

Using plastics in antifriction bearings. Izv. vys. ucheb. zav.;
mashinostr. no. 3:50-57 '61. (MIRA 14:5)

1. Moskovskoye vyssheye tekhnicheskoye uchilishche imeni Baumana.
(Plastic bearings)

GUS'KOV, P.S.

Shoe Industry--Study and Teaching

Effective system of instruction. Leg.prom. 12, no. 7, 1952.

9. Monthly List of Russian Accessions, Library of Congress, NOVEMBER 1952 ~~1953~~, Uncl.

ZAYONCHKOVSKIY, A.D.; YABKO, Ya.M.; MIKHAYLOV, N.A.; FEOKTISTOV, V.K.;
SHMERLING, B.M.; BEENSHTEYN, M.Kh.; GUS'KOV, F.G.; PARAMONOV, V.G.;
GLUZMAN, G.M.; GRIGORIADI, M.T.

Polyamide treatment of imitation kidskin and flesh layer splits.
Leg.prom. 16 no.10:22-26 0 '56. (MIRA 10:12)
(Hides and skins) (Amides)

GUS'KOV, F. G.

For a strict standardization of production in the leather and
footwear industry. Kozh. obuv. prom. 5 no. 12:9-10 D '63.
(MIRA 17:5)

GEL'FAND, Mark Samsonovich; GUS'KOV, G.G., red.; SOKOLOVA, R.Ya., tekhn.
red.

[Teaching algebra in the eighth grade of schools for working youth]
Prepodavanie algebry v vos'mom klasse shkoly rabochei molodezhi.
Moskva, Izd-vo Akad. pedagog. nauk RSFSR, 1957. 131 p.
(MIRA 14:7)

(Algebra--Study and teaching)

GEL'FAND, Mark Samsonovich; GUS'KOV, G.G., red.; LAUT, V., tekhn. red.

[Teaching the subject "Derivative function" in grade 10 schools for working youth] Prepodavanie temy "Proizvodnaia funktsiia" v I klasse shkoly rabochei molodezhi. Moskva, Izd-vo Akad. pedagog. nauk RSFSR, 1958. 111 p. (MIRA 14:7)

(Mathematics--Study and teaching) (Functions)

SHEVCHENKO, Ivan Nikitin; GUS'KOV, G.G., red.; LAUT, V.G., tekhn. red.

[Methods of teaching common fractions] Metodika prepodavaniia
obyknovennykh drobei. Moskva, Izd-vo Akad. pedagog. nauk
RSFSR, 1958. 129 p. (MIRA 14:7)
(Fractions—Study and teaching)

LOMOV, Boris Fedorovich; ANAN'YEV, B.G., prof., red.; GUS'KOV, G.G.,
red.; TARASOVA, V.V., tekhn.red.

[Formation of graphic knowledge and skills in students] Formi-
rovanie graficheskikh znaniy i navykov u uchashchikhsya. Pod
red.B.G.Anan'eva. Moskva, Izd-vo Akad.pedagog.nauk RSFSR, 1959.
268 p. (MIRA 13:7)

(Drawing--Instruction)

SEMAKIN, N.K.; VORONTSOV-VEL'YAMINOV, B.A...prof...red.: GUS'KOV,
G.G., red.; NOVOSELOVA, V.V., tekhn.red.

[Teaching astronomy in schools; collected articles] Prepodavanie
astronomii v shkole; sbornik statei. Pod red. B.A.Vorontsova-
Vel'iaminova. Moskva, 1959. 269 p. (MIRA 13:2)

1. Akademiya pedagogicheskikh nauk RSFSR, Moscow. Institut metodov
obucheniya. 2. Laboratoriya metodiki fiziki Instituta metodov obu-
cheniya Akademii pedagogicheskikh nauk RSFSR i Shkola No.500 g.
Moskvy (for Semakin). 3. Chlen-korrespondent Akademii pedagogicheskikh
nauk RSFSR i Pedinstitut imeni V.P.Potemkina, g.Moskva (for Vorontsov-
Vel'yaminov).

(Astronomy--Study and teaching)

KUZ'MINA, Serafima Alekseyevna; FETISOV, A.I., red.; GUS'KOV, G.G., red.;
SHAPOSHNIKOVA, A.A., red.; NOVOSKLOVA, V.V., tekhn.red.

[Demonstrating theorems in the 6th grade geometry course] O dokazatel'stve teorem v kurse geometrii VI klassa. Pod red. A.I. Fetisova. Moskva, Izd-vo Akad.pedagog.nauk RSFSR, 1960. 49 p.
(MIRA 13:12)

(Geometry--Study and teaching)

ARKAD'YEVA, O.M.; KOCHERGIN, N.L., matematik, red.; MOTINA, Ye.I., lingvist, red.; GUS'KOV, G.G., red.; MASLENNIKOVA, T.A., tekhn. red.

[Reading-book on mathematics, mechanics, and astronomy; textbook for foreign students studying the Russian language] Kniga dlia chteniiia po matematike, mekhanike i astronomii; dlia studentov-inostrantsev, izuchaiushchikh russkii iazyk. Uchebnoe posobie. Moskva, Izd-vo Mosk. univ., 1961. 172 p. (MIRA 14:11)

(Mathematics)

(Physics)

YENOKHOVICH, Anatoliy Sergeyevich; REZNIKOV, L.I., red.; GUS'KOV, G.G.,
red.; NOVOSELOVA, V.V., tekhn. red.

[Teaching physics in the eight-year school] O prepodavanii fiziki v vos'miletnei shkole. Pod red. L.I.Reznikova. Moskva, Izd-vo Akad. pedagog. nauk RSFSR, 1961. 190 p. (MIRA 14:5)
(Physics--Study and teaching)

KOTEL'NIKOV, V. A., akademik; GUS'KOV, G. Ya.; DUBROVIN, V. M.;
DUBINSKIY, B. A.; KISLIK, M. D.; KORENBERG, Ye. B.; MINASHIN,
V. P.; MOROZOV, V. A.; NIKITSKIY, N. I.; PETROV, G. M.;
PODOPRIGORA, G. A.; RZHIGA, O. N.; FRANTSESSON, A. V.;
SHAKHOVSKOY, A. M.

Radar tracking of the planet Mercury. Dokl. AN SSSR 147 no.6:
1320-1323 D '62. (MIRA 16:1)

1. Institut radiotekhniki i elektroniki AN SSSR.

(Mercury(Planet)) (Radar in astronomy)

BEYSOV, P.S.; VALKIN, M.Kh.; GUS'KOV, I.V.; KAZYUKHIN, V.V.; PUSHKAREVA,
G.V.; TOMUL', A.I.; KHAKHAM, Ya.M., tekhn. red.

[Ul'yanovsk, the native city of V.I.Lenin; notable places]
Ul'ianovsk - rodina V.I.Lenina; pamiatnye mesta. Ul'ianovsk,
Ul'ianovskoe knizhnoe izd-vo, 1963. 220 p. (MIRA 16:10)
(Ul'yanovsk--Lenin, Vladimir Il'ich, 1870-1924--Homes and haunts)
(Ul'yanovsk--Guidebooks)

LEBEDEV, N.N.; GUS'KOV, K.A.

Reactions of ~~oxides~~ oxides. Part 2: Kinetics of the reaction of ethylene oxide with acetic and monochloroacetic acids. Kin.i kat. 4 no.1:116-127
Ja-F '63. (MIRA 16:3)

1. Moskovskiy khimiko-tekhnologicheskii institut imeni Mendeleeva.
(Ethylene oxide) (Acetic acid) (Chemical reaction, Rate of)

LEBEDEV, N.N.; GUS'KOV, K.A.

Reactions involving α -oxides. Part 4: Acid catalysis and the intermediate compounds yielded by the reaction of ethylene oxide with carboxylic acids. *Kin. i kat.* 5 no.3:446-453 My-Je '64. (XIPA 17:11)

1. Moskovskiy khimiko-tekhnologicheskii institut imeni Mendeleyeva.

LEBEDEV, N.N.; GUS'KOV, K.A.

Reactions of α -oxides. Part 5: Reactivity of carboxylic acids
in the reaction with ethylene oxide. Kin. 1 kat. 5 no.5:787-
791 S-O '64. (MIRA 17:12)

1. Moskovskiy khimiko-tekhnologicheskiy institut imeni Mendeleyeva.

KOLCHIN, I.K.; GUS'KOV, K.A.; SKALKINA, L.V.

Synthesis of acrylic acid nitrile by the oxidative ammonolysis
of propylene. Khim. prom. 41 no. 12:881-887 D '65 (MIRA 19:1)

I 21782-66 EWT(m)/EWP(j)/T LJP(c) WVI/RM
ACC NR: AP6002862 (A) SOURCE CODE: UR/0286/65/000/024/0020/0020

AUTHORS: Shvets, V. F.; Gus'kov, K. A.; Gribov, A. M.; Zelenskiy, A. P.; Zorina, Ye. N.

ORG: none

TITLE: A method for obtaining acrylic acid nitrile. Class 12, No. 176890⁵

TOPIC TAGS: acetylene, acrylic acid, hydrocyanic acid, organic nitrile compound

ABSTRACT: This Author Certificate presents a preparative method for a nitrile of acrylic acid, based on a reaction between acetylene and hydrocyanic acid in presence of a Newland catalyst. To increase the product yield, the catalyst is saturated with acetylene prior to reaction, and the reaction is carried out in an ideal mixing apparatus. The saturation of the catalyst with acetylene is carried out in a packed absorption column (see Fig. 1).

Card 1/2

UDC: 547.339.2'391.1.07

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ACC NR: AP6002862

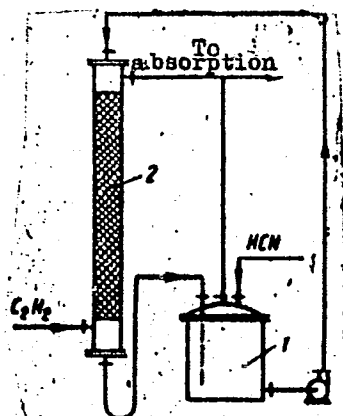


Fig. 1. 1 - ideal mixing apparatus; 2 - packed absorption column.

Orig. art. has: 1 figure.

SUB CODE: 07/ SUBM DATE: 04Mar65

Card 2/2 *UZR*

Gus'kov, K. M.

VERAKHOVTSEV, E.V.; KHAN, B.Kh.; GUS'KOV, K.M.; GUSHCHIN, Y.F.; MOROZENSKIY,
A.I.

Deoxidation and alloying of steel by solid ferroalloys in ladles.
Mol. tekhn.-ekon. inform. no.1:12-16 '57. (MIRA 11:4)
(Steel--Metallurgy)

GUS'KOV, K.P.; MACHIKHIN, Yu.A.; KALININ, Yu.V.

Effect of the material of macaroni dies on the pressure
in pressing. Izv. vys. ucheb. zav.; pishch. tekhn. no.4:
95-97 '63. (MIRA 16:11)

1. Moskovskiy tekhnologicheskii institut pishchevoy
promyshlennosti, kafedra soprotivleniya materialov.

GUS'KOV, K. P.

Cand Tech Sci

Dissertation: "Investigation of the Forcing Screws of Macaroni Presses Underload and their Design."

5 Oct 49

Moscow Technological Inst of Food Industry¹

SO Vecheryaya Moskva
Sum 71

GUS'KOV, K.P.; MACHIKHIN, Yu.A.; KALININ, Yu.V.

Chemical nickel plating of macaroni matrices. Izv.vys.ucheb.zav.;
pishch.tekh. no.4:121-123 '62. (MIRA 15:11)

1. Moskovskiy tekhnologicheskii institut pishchevoy promyshlennosti,
kafedra soprotivleniya materialov.
(Nickel plating)

GUS'KOV, L.A., inzh.

Drying in petrolatum and antisepticizing wood. Der.prom. 8
no.2:17-18 F '59. (MIRA 12:2)
(Wood--Perservation)

GERNET, M.M., doktor tekhn.nauk, prof.; DIKIS, M.Ya., doktor tekhn.nauk, prof.; LUK'YANOV, V.V., doktor tekhn.nauk, prof. [deceased]; POPOV, V.I., doktor tekhn.nauk, prof.; SOKOLOV, A.Ya., doktor tekhn.nauk, prof.; SOKOLOV, V.I., doktor tekhn.nauk, prof.; SURKOV, V.D., doktor tekhn.nauk, prof.; BARANOVSKIY, N.V., kand.tekhn.nauk, dots.; BROVDO, B.Ye., kand.tekhn.nauk, dots.; BUZYKIN, N.A., kand.tekhn.nauk, dots.; GOROSHENKO, M.K., kand.tekhn.nauk, dots.; GORTINSKIY, V.V., kand.tekhn.nauk, dots.; GREBENYUK, S.M., kand.tekhn.nauk, dots.; GUS'KOV, K.P., kand.tekhn.nauk, dots.; DEMIDOV, A.R., kand.tekhn.nauk, dots.; ZHISLIN, Ya.M., kand.tekhn.nauk, dots.; KARPIN, Ye.B., kand.tekhn.nauk, dots.; KOSITSYN, I.A., kand.tekhn.nauk, dots. [deceased]; GEYSHTOR, V.S., kand.tekhn.nauk, dots.; MARSHALKIN, G.A., kand.tekhn.nauk, dots.; MOLDAVSKIY, G.Ye., kand.tekhn.nauk, dots.; ODESSKIY, D.A., kand.tekhn.nauk, dots.; PELEYEV, A.I., kand.tekhn.nauk, dots.; RUB, D.M., kand.tekhn.nauk, dots.; SKOBLO, D.I., kand.tekhn.nauk, dots.; SHUVALOV, V.N., kand.tekhn.nauk, dots.; KHMEL'NITSKAYA, A.Z., red.; SOKOLOVA, I.A., tekhn. red.

[Principles of the design and construction of machinery and apparatus for the food industries] Osnovy rascheta i konstruirovaniia mashin i apparatov pishchevykh proizvodstv. Moskva, Pishchepromizdat, 1960.
741 p. (MIRA 14:12)

(Food industry—Equipment and supplies)

GUS'KOV, K.P.; MACHIKHIN, Yu.A.; KALININ, Yu.V.

Investigation of the surface roughness of macaroni products. Izv. vys.
ucneb. zav.; pishch. tekhn. no.4:92-94 '61. (MIRA 14:8)

1. Moskovskiy tekhnologicheskii institut pishchevoy promyshlennosti,
kafedra soprotivleniya materialov.
(Macaroni)

TRAYTEL'MAN, G.Ya.; GUS'KOV, L.A.

"Planning the general layout of woodworking enterprises" by
N.O.Nekhamkin. Reviewed by G.IA.Traitel'man, L.A.Gus'kov.
Der.prom. 9 no.5:28 My '60. (MIRA 13:7)

1. Sibirskiy tekhnologicheskii institut.
(Woodworking industry)

VOL'F, L.A.; MEOS, A.I.; INKINA, S.A.; QUS'KOV, L.I.

Causes of the yellowing of vinol (vinylon) in the course of its thermal treatment, and means for its prevention. Khim.volok. no.1: 19-21 '61. (MIRA 14:2)

1.Leningradskiy tekstil'nyy institut imeni S.M.Kirova.
(Vinylon)

ACC NR: AP6030132

(N)

SOURCE CODE: UR/0120/66/000/004/0066/0071

AUTHORS: Artem'yev, V. V.; Gus'kov, L. N.; Mikhaylov, V. N.

ORG: Institute of Semiconductor Physics, SO AN SSSR, Novosibirsk (Institut fiziki poluprovodnikov SO AN SSSR)

TITLE: Rapid correlating photon counter for the visible region of the spectrum

SOURCE: Pribery i tekhnika eksperimenta, no. 4, 1966, 68-71

TOPIC TAGS: photomultiplier tube, photon emission, photomultiplier, laboratory optic instrument, signal correlation/ FEU-30 photomultiplier

ABSTRACT: The time characteristics of a photon counter which records single photons are analyzed. The counter is a photon correlator in a coherent light beam over a time interval up to 6×10^{-10} sec. The threshold sensitivity of the counter is set at

2×10^{-16} volts. The block schematic for the counter is given. It has two principal components: an FEU-30 photomultiplier (PM), and a tunnel diode discriminator. The latter has a sensitivity of 0.1 volt over a pulse duration of 3 nanosec. The principal features of the PM and the discriminator circuit are also given. The discriminator allows a 20--200 nanosec pulse adjustment. A sample of a standing wave record is shown with a half-width of 1.24 nanosec. The photon current source used for time correlation is a mercury lamp at 5460.7 Å wavelength. The authors express their gratitude to S. P. Bezborodov for assembling many of the instrument chassis. Orig. art. has: 3 figures and 1 table.

SUB CODE: 09, 20/ SUBM DATE: 15Jul65/ ORIG REF: 001/ OTH REF: 005
Card 1/1 UDC: 621.387.464.3

GUS'KOV, M.D.; KAN. A.G.

Experimental investigation of the effect of vibrating loads on the wear of samples in friction against a solid abrasive. Izv. vysh. ucheb. zav.; neft' i gaz 6 no.3:109-112 '63. (MIRA 16:7)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti imeni akademika Gubkina.

(Machinery--Vibration)

(Abrasion)

GUS'KOV, M. G.

GUS'KOV, M. G. --"The Possibility of Increasing the Rate of Motion of Liquids in the Pipelines of Ship Systems." Leningrad, 1956. (Dissertation for the Degree of Candidate in Technical Sciences.)

So.: Knizhnaya Litopis', No. 7, 1956.

GUS'KOV, M.G.

Investigation of the rate of flow characteristics of throttle valves.
Trudy LKI no.29:27-37 '59. (MIRA 14:7)

1. Leningradskiy korablestroitel'nyy institut, kafedra konstruksii
sudov. (Fluid dynamics) (Marine pipe fitting)

LOSKUTOV, Vladimir Vasil'yevich; KHORDAS, Georgiy Saulovich.
Prinimal uchastiye LAZAREV, I.L., inzh.; ALEKSANDROV,
A.V., dots., kand. tekhn. nauk, retsenzent; MOCHUL'SKIY,
A.A., inzh.; GUS'KOV, M.G., nauchn. red.; OZEROVA, Z.V.,
red.; SHISHKOVA, L.M., tekhn. red.

[Hydraulic calculations of ship systems] Gidravlicheskie
raschety sudovykh sistem. Leningrad, Sudpromgiz, 1963.
311 p. (MIRA 17:3)

GUS'KOV, M.I.

Apparatus for objective measurement of heterophoria. Vest. oft., Moskva
32 no.3:32-35 May-June 1953. (CINL 25:1)

1. Vil'nyus.

GUS'KOV, M.I. (Vil'nyus)

Otoscopy using an electric ophthalmoscope. Vest.oto-rin. 20 no.
1:93 Ja-F '58. (MIRA 11:3)
(EAR--EXAMINATION)

GUS'KOV, H.I. (Vil'nyis)

Voluntary movement of the eardrums. Vest.otorin. 20 no.2:114
Mr-Ap '58. (MIRA 12:11)

(TYMPANIC MEMBRANE)

GUS'OV, N.I. (Vil'nyus)

Examination of latent strabismus by an objective method. Vest. oft.
71 no.2:32-33 Mr-Ap '58. (MIRA 11:4)
(STRABISMUS, diag.
objective exam. method in latent strabismus)

(A)	L 11646-66	EWT(d)/EWT(m)/EWP(f)/T/EWA(c)	DJ
ACC NR:	AP6002953	SOURCE CODE: UR/0286/65/000/024/0124/0125	
INVENTOR: ^{4/4} Dolganov, M. S.; ^{4/4} Milyayev, G. G.; ^{4/4} Kotov, A. G.; ^{4/4} Filippov, V. V.; ^{4/4} Gus'kov, N. G.; Koshman, E. I.			
ORG:	none	37	
TITLE: <u>Rotary fuel pump</u> ^{11,44 71} Class 46, No. 177228 [announced by <u>Noginsk Fuel Equipment Factory</u> (Noginskiy zavod toplivnoy apparatury)] ^{4/4 B}			
SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 24, 1965, 124-125			
TOPIC TAGS: fuel pump, internal combustion engine			
ABSTRACT: The proposed pump for internal combustion engines contains a pressure valve, a measuring device, and a rotor-distributor with pressure pistons positioned opposite one another which are driven by a fixed cam plate (see figure). To improve the engine's operation by improving the cut-off at the end of the injection, the measuring device is made in the form of a sliding sleeve with an internal annular groove radially located in the rotor. The piston also has an annular groove whose position, relative to the sleeve groove, determines the piston's stroke.			
Card	1/2	UDC: 621.43.031	

L 11646-66

ACC NR: AP6002953

14 21 25

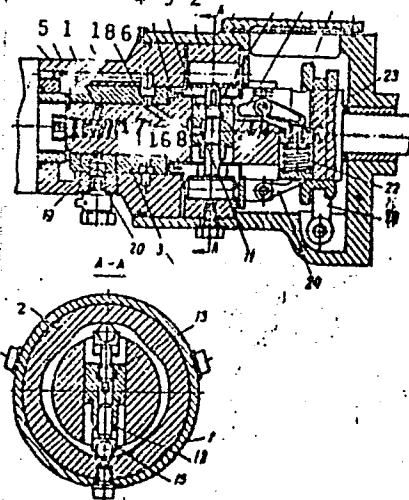


Fig. 1. Fuel pump

1 - Pump housing; 2 - cam plate; 3 - bearing sleeve; 4 - rotor; 5 - chamber; 6,7,8 - fuel feed channels; 9 - sliding sleeve; 10 - annular groove; 11 - openings; 12 - smooth piston; 13 - piston with annular groove; 14 - piston port; 15 - roller tappet; 16 - central rotor channel; 17 - pressure valve; 18 - distribution channel; 19 - fuel outlet channel; 20 - outlet to fuel injector; 21 - double-arm lever; 22 - spring; 23 - corrector; 24 - pressure arm; 25 - clutch; 26 - control lever.

In a variation of this pump, a double-arm lever is mounted in the rotor groove; one arm is connected to the sliding sleeve and the other, to the regulator spring. Orig. art. has: 1 figure.

[TN]

SUB CODE: 21/ SUBM DATE: 03Jul64/ ATD PRESS: 4175

Card 2/2

GENSIKOV, I. I., YEREMAKOV, V.

Gas Pipes

Economize material in each operation. Zhil.-kom. khoz. 2 no. 5, 1952.

Monthly List of Russian Accessions. Library of Congress, September 1952. UNCLASSIFIED

KUZ'MENKOV, A.R., inzh.; GUS'KOV, P.G., inzh.; SKLYAROV, L.A., inzh.

Automation of the benzene scrubbing department at the Stalinsk
Coke-Chemical Plant. Mekh.i avtom. proizv. 15 no.6:18-20 Je '61.
(MIRA 14:6)

(Stalinsk--Coke industry)

(Automation)

GUS'KOV, P.I., inzh.; ZHUKOVSKIY, A.A., inzh.

Instrument for automatically recording and measuring the slippage
of a belt on the driving roller of a conveyor. Izv. vys. ucheb.
zav.; gor. zhur. no.2:133-136 '61. (MIRA 14:3)

1. Chelyabinskiy nauchno-issledovatel'skiy institut gornogo dela.
Rekomendovana kafedroy avtomatizatsii proizvodstvennykh protsessov
Sverdlovskogo gornogo intituta im. V.V. Vakhrusheva.
(Conveying machinery- Testing)

VESHENEVSKIY, S.N.; VORONETSKIY, B.B.; GUS'KOV, P.S.; KLIMOV, D.Yu.;
MASLENNIKOV, L.V.; PASHKOV, M.V.; PETROV, I.I.; SOKOLOV, I.I.;
STEPANOV, Yu.V.; TUROVSKAYA, P.G.; KHECHUMAN, A.P.; TSEIN, V.S.;
SHTEYN, I.M.

Professor Konstantin Vasil'evich Urnov, 1907-1964; obituary.
Elektrichestvo no.3:91. Mr '65. (MIRA 18:6)

L 10998-66

ACC NR: AP6001979

SOURCE CODE: UR/0105/65/000/003/0091/0091

AUTHOR: Veshenevskiy, S. N.; Voronetskiy, B. B.; Gusa'kov, P. S.; Klimov, D. Yu.; Maslennikov, L. V.; Pashkov, M. V.; Petrov, I. I.; Sokolov, I. I.; Stepanov, Yu. V.; Turovskaya, P. G.; Khechumyan, A. P.; Tsein, V. S.; Shteyn, I. M.

ORG: none

TITLE: Professor K. V. Urnov

SOURCE: Elektrichestvo, no. 3, 1965, 91

TOPIC TAGS: scientific personnel, academic personnel

ABSTRACT: Konstantin Vasilevich Urnov died on 11 December 1964 after a serious illness. He was a distinguished scientist and one of the oldest electro-polygraphists. He was born in 1907 and graduated from the Ivanovskiy Polytechnic Institute in 1929, after which he continued to work on the Board of Electric Installations for the next 25 years. His outstanding contribution was to relate successfully the activities of industry with those of the higher educational institutions. His name is closely linked to the development of domestic polygraphic machinery. He was imaginative, creative and bold. Since 1935 he was also engaged in teaching and scientific research work at the Moscow Power Institute and the Moscow Polygraphic Institute where he set up a course on "Electric Drives and Automation of Polygraphic Machines". He is the author of over 30 inventions and published works, including one book. He was a scientist-communist, a man of great knowledge, a good colleague and friend. Orig. art. has: 1 figure. [JPRS]

SUB CODE: 05 / SUBM DATE: none

Card 1/1

UDC: 621.313.1/3

GUS'KOV, S.

About those who assault mountains. Izobr. 1 rats. no.10:10-11

0 '58.

(MIRA 11:11)

(Communist Youth League)

1. GUS'KCV, T. D.
2. USSR (600)
4. Cattle - Feeding and Feeding Stuffs
7. Our experience in pasture fattening of cattle. Dost. sel'khoz. no. 5, 1952
9. Monthly List of Russian Accessions, Library of Congress, January, 1953. Unclassified

Gl...
AUTHORS: Gus'kov, V.A., Fiochin, M.Ya.

76-11-29/35

TITLE: A Method for Polarization Measurements in Solutions of Low Electric Conductivity (Metodika polarizatsionnykh izmereniy v slabo elektroprovodnykh rastvorakh)

PERIODICAL: Zhurnal Fizicheskoy Khimii, 1957, Vol. 31, Nr 11, pp.2575-2577 (USSR)

ABSTRACT: On the basis of an example concerning solutions in glacial acetic acid a method for measuring polarization is described. A system consisting of an ordinary potentiometer $\Pi-4$ and an amplification attachment $\Pi\Pi-2$ is used. When recording polarization curves the authors met with difficulties: While the motor of the thermostat stirring device, or when connecting various resistances to the polarization circuit, the capacity of the casing changed although it always had the same potential when measured. Therefore the amplifier casing must, above all, be very carefully earthed. Besides, the line from the calomel-semi-element must be carefully screened. The latter must in all cases be connected with the network. There is 1 figure.

~~Card~~ 7/2

Moscow Chem Tech Inst am D. I. Mendeleev

GAS'KOV, V.A.

V. Electrochemical synthesis of lead tetraacetate.⁷ M. Ya. Fioshig and V. A. Gas'kov (D. I. Mendeleev Chem. Technol. Inst., Moscow). *Doklady Akad. Nauk S.S.S.R.* 112, 303-3 (1957).— $Pb(OAc)_4$ is produced upon the anode during electrolysis in glacial $AcOH$ and is of practical interest as a strong oxidizing agent, to be preferred over PbO_2 because of its sol. in $AcOH$, C_6H_6 , $CHCl_3$, $C_6H_5NO_2$, etc. The possible formation of a film of $Pb(OAc)_2$, poorly sol. in $AcOH$, which screens the anode, was tested by detg. the anodic polarization curve during electrolysis. A sharp increase of c.d. increased the formation of such a film. The critical c.d., i.e. the c.d. at which the potential rises sharply, depends greatly on the temp., $Pb(OAc)_2$ and $KOAc$ concns., and is higher at higher temps. and concns. of the salt. The exptl. results indicated the following optimum concns. for the electrochem. synthesis of $Pb(OAc)_4$: the soln. compn. 2.1N $Pb(OAc)_2$ and 0.52N $KOAc$; the anode section temp. 85°, c.d. on the anode 0.3 amp./sq. cm. The yield was 98% on the current consumed. W. M. Sternberg

12/20/57

Card 4/8
Radioactive isotope preparations

GALITSKIY, N.V.; GUS'KOV, V.M. [deceased]

Studying the pressure of chromium trichloride vapor. Izv.
vys. ucheb. zav.; tsvet. met. 8 no.4:75-77 '65. (MIRA 18:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy i proyektnyy institut
alyuminiyevoy, magniyevoy i elektrodnoy promyshlennosti.

4

CA

Standardizing nickel-plating baths. V. M. Guskov and A. Z. Rivkind. *Metallurg* 9, No. 1, 60-85 (1934).

Best results in plating can be obtained by using *N* and 2 *N* solns. of NiSO_4 with c. ds. of 0.5 and 0.7 amps./sq. dm., resp. As anode depolariser NaCl , MgCl_2 or NiCl_2 can be added in concns. of 0.05-0.20 *N* H_2BO_3 (10-25 g./l.) may also be added. For fast work a temp. of 40 $^\circ\text{C}$ with a c. d. of 10 amps./sq. dm. is recommended. H. W. Rathmann

ASTM 31.4 METALLOGRAPHIC LITERATURE CLASSIFICATION

Electrometallurgy of aluminum. V. M. Guskov.
Metallurg. 9, No. 10, 78-87 (1914). - G. discusses various
theories about the electrolysis of Al in a cryolite bath and
suggests that the discharge of the Al and F ions from the
cryolite is the primary reaction. The F then reacts with
the AlCl₃: $AlCl_3 + 3F_2 + 3C \rightarrow 2AlF_3 + 3CCl_4$. Reply
G. A. Abramov. Ibid. 87 p. H. W. Rathmann

1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
PROCESSES AND PROPERTIES INDEX																			
<p>BC</p> <p>Decomposition potentials of fused salts. V. M. GUSKOV (Coll. Trans. 1st U.S.S.R. Conf. Non-aq. Solutions, Kiev, 1985, 159-173).—E.m.f. measurements relating to the cell $Mg molten\ MgCl_2 Cl$ (C anode; molten $NaCl-KCl-MgCl_2$ electrolyte) at 665-783° afford no evidence of the existence of complex anions of the type $MgCl_2^-$. The temp. coeff. of the e.m.f. is 0.7×10^{-3}. The results suggest that cryolite dissociates as follows: $Na_3AlF_6 \rightleftharpoons 3Na^+ + AlF_6^{3-}$.</p> <p>the reaction at the C anode being $2Al_2O_3 + 3C + 6F_2 \rightarrow 4AlF_3 + 3CO_2$; $CO_2 + C \rightarrow 2CO$. R. T.</p>																			
<p>ASO-3LA METALLURGICAL LITERATURE CLASSIFICATION</p>																			
<p>1st ORDER</p>										<p>2nd ORDER</p>									
<p>3rd ORDER</p>										<p>4th ORDER</p>									

5

1ST AND 2ND ORDERS PROCESSES AND PROPERTIES INDEX

The Technique of Magnesium Production. V. M. Guskov (*Metallurg*)
(*Metallurgist*), 1935, (1), 81-88.—[In Russian.] A review. N. A.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

REGIONAL DIVISIONS

SERIALS INDEX

RESEARCH ONE ONLY

137 AND 138 ORDERS

PROCESSES AND PROPERTIES INDEX

7

Electrolytic Production of Calcium. V. M. Guskov and M. T. Kovalenko
(Metallurg (Metallurgy), 1962, (8), 73-76). (In Russian.) A description and
the results of tests of a bath designed for the production of calcium. N. A.

ASSOCIATED METALLURGICAL LITERATURE CLASSIFICATION

137 AND 138 ORDERS

PROCESSES AND PROPERTIES INDEX

CA

The effect of barium chloride, calcium chloride and calcium fluoride on the electrolysis of magnesium. Vasil'ev, Gue'kov and Z. V. Vasil'ev. *Metallurg* 11, No. 5, 48 (1969).—Addn. of BaCl_2 , CaCl_2 and CaF_2 to KCl-MgCl_2 electrolyte increases the current efficiency. H. W. R.

ASB-11.6 METALLURGICAL LITERATURE CLASSIFICATION

Electrolytic production of magnesium-zinc alloys
V. M. Guskov and Kh. L. Strelers. *Metallurg* 11, No. 10,
18-20 (1965). Fused carnallite was electrolyzed by
use of a molten Zn cathode. Soln. of Zn in carnallite
varies from 0.0000% at 565° to 0.0000% at 710°. If
the concn. of Mg in the Zn cathode is less than 30%,
varying the temp. of electrolysis between 560° and 721°
has little effect on the current efficiency. At higher
concn. the highest efficiency is obtained at 650-660°.
The optimum d. at this temp. is 4 amp per sq cm.
Variation in the concn. of Mg between 20 and 85%
does not affect current efficiency at 650°, which is about
90%. H. W. Rathmann

PROCESSES AND PROPERTIES

7

M

***Electrolytic Production of Magnesium-Zinc Alloys.** V. M. Guskov, and H. L. Strelets (*Tsentral'noye Aluminovye-Magnitovye Institut* ("V.A.M.I.")). (*Trans. Aluminum-Magnesium Inst.*, 1957, (14), 71-80).—(In Russian.) In the production of magnesium-zinc alloys by electrolysis of fused carnallite above a molten zinc cathode at 600°-730° C., temperature has little effect on the current yield until the magnesium content of the cathode reaches 30% after which the highest yield (90%) is obtained at 550°-680° C., using a current density of 1-2 amp.cm². The energy consumption is about 13 kw.-hr. kg. of magnesium. —D. N. S.

ASAC-55A METALLURGICAL LITERATURE CLASSIFICATION

1950-54										1955-59										1960-64										1965-69										1970-74									
1950-54										1955-59										1960-64										1965-69										1970-74									

GUS'KOV, V. M.

Electrolytic obtaining of aluminum Leningrad, Gos. nauchno-tekhn. izd-vo
lit-ry po chernoi i tsvetnoi metallurgii, 1940 (Mic 53-159)
Collation of the original as determined from the film: 284 p.

Microfilm TN-6

1. Aluminum-

[illegible]

GUSKOV V.M.

BELIAYEV, Anatoliy Ivanovich, professor, doktor; ZHUKOVSKIY, Ye.I., professor, retsenzent; GREYVER, N.S., professor, doktor, retsenzent; GUS'KOV, V.M., professor, doktor, retsenzent; TSAKOGORODTSKY, I.D., dotsent, retsenzent; FALEYEV, P.V., dotsent, retsenzent; GUSAKOVSKIY, V.K., dotsent, retsenzent; CHERNOV, A.N., redaktor; ATTOPOVICH, M.K., tekhnicheskiiy redaktor

[Metallurgy of light metals; general course] Metallurgiya legkikh metallov; obshchii kurs. 4-e izd. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry chernoi i tsvetnoi metallurgii, 1954. 403 p. (MLRA 7:10)
(Light metals--Metallurgy)

Gus'kov
AGEYEV, P.Ya.; ALABYSHEV, A.F.; BAYMAKOV, Yu.V.; BELYAYEV, A.I.; BATASHEV, K.P.;
BUGAREV, L.A.; VASIL'YEV, Z.V.; GUPALO, I.P.; GUS'KOV, V.M.; ZHURIN, A.I.;
VET'YUKOV, M.M.; KOSTYUKOV, A.A.; LOZHKIN, L.N.; OL'KHOV, N.P.;
OSIPOVA, T.V.; PERTSEV, I.I.; RUMYANTSEV, M.V.; STRELETS, Ye.L.;
FIRSANOVA, L.A.; CHUPRAKOV, V.Ya.

Georgii Alekseevich Abramov. TSvet.met. 27 no.2:72-73 Mr-Ap '54. (MIRA:10:10)
(Abramov, Georgii Alekseevich, 1906-1953)

137-58-6-11495

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 34 (USSR)

AUTHORS: Gus'kov, V.M., Ivanov, A.I., Pashkevich, L.A.

TITLE: Fusibility Diagram of Three Cross Sections of the Quaternary System NaF-AlF₃-CaF₂-BaF₂ (Diagramma plavkosti trekh razrezov chetvernoy sistemy NaF-AlF₃-CaF₂-BaF₂)

PERIODICAL: Tr. Vses. alyumin.-magn. in-ta, 1957, Nr 39, pp 251-273

ABSTRACT: To determine the optimum composition of an NaF-AlF₃-CaF₂-BaF₂ bath for Al refining, a study was conducted of the fusibility of this quaternary system within the limits of the concentrations of the components needed to obtain high-purity Al. Methods of thermal, and in part, crystal optic analysis, are used to study 3 incomplete primary sections with the following constant BaF₂ contents: 22, 27, and 32 weight %. 28 secondary sections are plotted and 3 two-dimensional diagrams of primary sections of equal concentration, with isotherms of primary crystallization at 25°C intervals. The two-dimensional diagrams showed the presence of four fields of primary crystallization and a region adjacent to the AlF₃ corner for a mixture the fusion of which could not be carried to

Card 1/2

137-58-6-11495

Fusibility Diagram of Three (cont.)

completion because of the high volatility of AlF_3 , i.e., an unrealizable fifth region. The immersion method of crystal optics established the substances of primary crystallization for 3 fields out of 4 and a tentative mineralogical phase composition for each of the fields. The presence of melts with temperatures of primary crystallization 100-120° lower than the temperature of fusion of the electrolyte tested in the production of high-purity Al is established.

N.P.

1. Halogen fluorides--Effectiveness
2. Halogen fluorides--Analysis
3. Aluminum--Processing

Card 2/2

SOV/137-58-7-14542

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 7, p 86 (USSR)

AUTHORS: Gus'kov, V.M., Zuyev, N.M., Voynitskiy, A.I.

TITLE: Aluminothermal and silicothermal Methods of Production of Potassium from Chlorine Salts. Thermal (Aluminothermal and silicothermal) sposoby polucheniya kaliya iz yego khloristoy soli)

PERIODICAL: Tr. Vses. n.-i. alyumin.-magn. in-ta, 1957, Nr 40, pp 307-336

ABSTRACT: A brief review of the development of K metallurgy. The results of laboratory investigations of the thermal process of K production are presented. It is found that the quantity of reductant and the amount of CaO in the charge affect recovery of the metal in equal measure. The following charge compositions are recommended. For reduction with Al, a molecular CaO:KCl ratio of 0.6-1.0, Al:KCl = 0.8-1.2. Correspondingly, for reduction by silica, CaO:KCl = 0.6-0.9, and Si:KCl = 0.7-1.1. An increase in temperature reduces the duration of the thermal process. Maximum metal extraction is attained when the briquets are held at a temperature of $>900^{\circ}\text{C}$. This temperature

Card 1/2

SOV/137-58-7-14542

Aluminothermal and Silicothermal Methods of Production (cont.)

- . permits nearly 100% recovery in Al reduction and up to 70% in Si reduction, provided that the reductant is finely ground and the CaO is under 36μ . The working pressure in the retort is ≤ 0.5 mm Hg. The addition of KF to the charge, particularly in Al reduction, increases K recovery. When a silico-aluminum alloy or ferrosilicon is used as the reductant, it must be borne in mind that the reducing power of Al and Si in alloys diminishes as the amount of impurities rises. Bibliography: 17 references.

L.P.

1. Potassium chlorides--Processing 2. Potassium--Production 3. Aluminum
--Chemical reactions 4. Silicon--Chemical reactions

Card 2/2

SOV/137-58-7-14541

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 7, p 86 (USSR)

AUTHORS: Zuyev, N.M., Gus'kov, V.M.

TITLE: Coloration of the Sublimate in Thermal Production of Potassium
From its Chlorine Salts (Okrashivaniye vozgona pri termi-
cheskom poluchenii kaliya iz yego khloristoy soli)

PERIODICAL: Tr. Vses. n.-i. alyumin.-magn. in-ta, 1957, Nr 40, pp
337-339

ABSTRACT: The coloration of the sublimate KCl (obtained in thermal
production of K) under the action of K fumes is hypothesized to
result from the formation of sub-compounds of K or from the
presence of dispersed K particles of colloidal type. On the
basis of the chemical, X-ray, and crystal-optical investiga-
tions of the colored sublimates, and of the known temperatures
of formation and decomposition of the sub-compounds, the
authors believe the reason for the coloration to be colloidal
particles of K.

Card 1/1 1. Potassium--Production 2. Potassium chlorides--Color L.P.
3. Potassium vapors--Chemical reactions

SOV/137-58-7-14560

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 7, p 88 (USSR)

AUTHORS: Voynitskiy, A.I., Gus'kov, V.M., Zuyev, N.M.

TITLE: Trends in the Development of the Production of Sodium and of Alloys of Sodium and Potassium Required to Produce Titanium by Sodiumthermal and Combined Methods (O putyakh razvitiya proizvodstva natriya i splavov natriya s kaliyem, neobkhodimyykh dlya polucheniya titana natriyetermicheskimi i kombinirovannymi sposobami)

PERIODICAL: Tr. Vses. n.-i. alyumin.-magn. in-ta, 1957, Nr 40, pp 340-352

ABSTRACT: The results of laboratory experiments in the electrothermal production of Na and K alloys, based on reduction in vacuum of a mixture of Na and K chlorides by ferrosilicon or by primary Si-Al alloy in the presence of CaO, are adduced. Spent magnesium-plant electrolyte containing Na and K chlorides is suggested as the raw material for production of the alloys. Process procedures and compositions of mixes for production of Na and Na-K alloys are suggested. The design of vacuum equipment developed for this process is adduced. The furnace

Card 1/2

SOV/137-58-7-14560

Trends in the Development of the Production of Sodium (cont.)

has internal and external heating. Side and bottom condensation of the Me are provided for. Hot charging and discharging of the N₂-filled furnace (without cooling) are provided.

L.P.

1. Sodium--Production
2. Sodium alloys--Production
3. Potassium alloys--Production
4. Sodium chlorides--Sources
5. Potassium chlorides--Sources

Card 2/2

SOV/137-58-7-14533

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 7, p 85 (USSR)

AUTHOR: Gus'kov, V.M.

TITLE: Prospects for the Production of Very High-purity Aluminum
(Perspektivy polucheniya ul'trachistogo alyuminiya)

PERIODICAL: Byul. tsvetn. metallurgii, 1957, Nr 8, pp 73-76

ABSTRACT: A review is presented of a number of processes for the production of high-purity Al by electrolytic refining, distilling into halide sub-compounds, floating-zone recrystallization, and the growing of crystals. It is noted that some of these processes permit the production of metal of 99.9995% purity. The production of very high-purity metal requires a combination of these methods. The areas of application of high-purity Al are listed.

L.P.

1. Aluminum--Production 2. Aluminum--Purification

Card 1/1

AUTHOR: Gus'kov, V.M., Professor.

136-5-5/14

TITLE: Some ideas on processes occurring during electrolysis of cryolite-alumina melts. (Nekotorye predstavleniya o protsessakh protekayushchikh pri elektrolize kriolit-glinozemnykh rasplavov.)

PERIODICAL: "Tsvetnye Metally"(Non-ferrous Metals) 1957, No.5, pp. 29 - 34 (U.S.S.R.)

ABSTRACT: The author selects for discussion those problems on the electrolysis of cryolite-alumina melts which have been most fully studied but not entirely solved; he also indicates promising lines for further research. On the solubility of aluminium in the melt the conclusion is that this is better explained by the formation of lower-valency aluminium compounds than by the colloidal theory. After discussing equations relating the yield of metal with respect to ~~current~~ the author concludes that no universal equation will be found for cryolite-alumina melts because of the complexity of factors involved. For explaining the mechanism of current transfer in the melts further research is necessary (present ideas being largely unsubstantiated by experiment), particularly with radio-active isotopes. Insufficiency of experimental evidence is attributed also to electrode-process theories in the melts and work on

Card 1/2

Some ideas on processes occurring during electrolysis of
cryolite-alumina melts. (Cont.)

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individual deposition-potentials, polarization curves and the
development of new experimental techniques are recommended.
The author considers that investigations of the influence of
magnesium fluoride are hampered by the use of low-activity mag-
nesia, and do not give sufficient information on the effect of
additions on the various processes involved in the electrolysis.

ASSOCIATION: All-Union Aluminium-magnesium Institute. (VAMI)

AVAILABLE:

Card 2/2

SOV/137-58-10-20721

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 10, p 54 (USSR)

AUTHORS: Gus'kov, V.M., Belyayev, A.P.

TITLE: Production of High-purity Magnesium and Alloys Based Thereon (Polucheniye magniya vysokoy chistoty i splavov na yego osnove)

PERIODICAL: V sb.: Legkiye metally. Nr 4. Leningrad, 1957, pp 95-99

ABSTRACT: A procedure is developed for sublimation of electrolytic Mg in vacuum and the production of high-purity metal. The process is run in vertical steel retorts (R) with a capacity of 250 kg Mg in a vacuum furnace with Ni-Cr heaters. The Mg pigs are roasted at 350-400°C to remove paraffin and wrapping paper, the surfaces are cleaned, and they are placed in the crucible of the R which is placed in the zone of sublimation. After the R and furnace are sealed, the air is evacuated from them to a pressure of 0.2-mm Hg in the R and 2-3-mm Hg in the furnace. The furnace temperature is then raised to 700°, and the pressure in the R to 0.05-0.09 mm Hg. The sublimation of the Mg proceeds at a rate of ~9 kg/hr. The Mg is sublimated in the upper portion of the R in the form of large

Card 1/2